

Linksys WCM300 Channel Bonded Cable Modems

Product Overview

The Linksys® WCM300 Channel Bonded Cable Modems (Figure 1) deliver very high-speed broadband services. These extremely fast and cost-effective modems deploy advanced downstream channel-bonding technology, based on DOCSIS® 3.0, which allows operators to bond up to eight channels and support up to 300 Mbps on a single bonded downstream. The modems enable a new generation of bandwidth-intensive IP services such as video over DOCSIS.

The modems are available in three attractive, compact models:

- WCM300-NA supports North American DOCSIS 6 MHz channel operation: 8–860 MHz downstream and 5–42 MHz upstream.
- WCM300-JP supports DOCSIS operations in Japan with an extended 5–55 MHz upstream range.
- WCM300-EU supports Euro-DOCSIS 8-MHz channel operation, 88–862 MHz downstream and 5–65 MHz upstream.

Figure 1. Linksys WCM300 Channel Bonded Cable Modem



The modems work with the Cisco® uBR10012 Universal Broadband Router, offering a cost-effective strategy to support DOCSIS 3.0 downstream features today. With the proper cable modem termination system (CMTS) setup, the Linksys WCM300 Channel Bonded Modems can coexist on the same hybrid fiber-coaxial (HFC) network with traditional DOCSIS 2.0 and 1.x modems, as well as tomorrow's DOCSIS 3.0-certified modems. This deployment flexibility provides maximum investment protection and minimal service interruption for a smooth transition to DOCSIS 3.0.

The Linksys WCM300 Channel Bonded Modems deliver more bandwidth and speed per subscriber than previously available. The modems enable cable operators to compete effectively with other high-speed data providers deploying fiber to the home or advanced digital subscriber line (ADSL) services.

Features and Benefits

Table 1 lists the features and benefits of the Linksys WCM300 Channel Bonded Modems. Table 2 lists product specifications, and Table 3 lists system requirements.

Table 1. Features and Benefits

Feature	Benefit
Performance	
Eight-channel bonding capability based on DOCSIS 3.0 downstream channel bonding specifications	For subscribers: Enables unprecedented download time and a superior online experience. For cable operators: Expands the current 30-Mbps service portfolio options up to 300 Mbps, enabling operators to scale services today to meet new subscriber demands – retaining and attracting new subscribers. Supports cost-effective upgrade of existing HFC infrastructure to compete against other service providers offering alternative high-speed data technologies.
Investment Protection	
Compatible with DOCSIS 1.0, 1.1, and 2.0 modems within the same cable network	Increases deployment flexibility and decreases deployment cost through efficient allocation of available bandwidth and HFC infrastructure.
Compatible with DOCSIS 3.0 modems within the same cable network	Offers easier management for transition to DOCSIS 3.0.
Standards-based cable modem with RF and bridged Ethernet ports, remote manageability using SNMP MIBs	Simple turn-up and management Secure data exchange between modems and cable headend

Product Specifications

Table 2. Product Specifications

Product compatibility	Interoperable with DOCSIS 1.0, DOCSIS 1.1, DOCSIS 2.0, IEEE 802.3, IEEE 802.3u, and IEEE 802.3ab specifications
Protocols	DOCSIS 1.0, DOCSIS 1.1, DOCSIS 2.0, DOCSIS 3.0 downstream control plane and data plane, IEEE 802.3, IEEE 802.3u, IEEE 802.3ab
Performance	Eight-channel bonding capability
Frequency Range (MHz)	WCM300-NA: North American NTSC tuning plan with 5–42 MHz upstream range WCM300-JP: Japanese tuning plan with 5–55 MHz upstream range WCM300-EU: European tuning plan with 5–65 MHz upstream range
Cards/ports/slots	Power, Ethernet, Cable
Indicators	Power, DS, US, Online, Link, Wideband
Connectivity	Cable: F-type female 75 ohm Ethernet: 10/100/1000 RJ-45 port
Buttons	Reset
Weight	19.05 oz (540 g)
Physical dimensions (HxWxD)	1.97 inches (5.0 cm) x 7.09 inches (18.0 cm) x 7.09 inches (18.0 cm)
Power	Input: WCM300-JP: 100V, 50/60Hz WCM300-NA: 100–240V, 50–60Hz WCM300-EU: 100–240V, 50–60Hz Output: WCM300-JP: 12V, 1.5A WCM300-NA: 12V, 2.5A WCM300-EU: 12V, 2.5A
Approvals and compliance	WCM300-JP: VCCI, JATE, PSE, RoHS, WEEE WCM300-NA: UL 60950-1, MIC, FCC Part 15 Class B, CE, CB, RoHS, WEEE WCM300-EU: UL 60950-1, FCC Part 15 Class B, CE, CB, RoHS, WEEE
Operating temperature	32 to 104°F (0 to 40°C)

Storage temperature	–4 to 158°F (–20 to 70°C)
Operating humidity	10 to 90% noncondensing
Storage humidity	10 to 90% noncondensing

System Requirements

Table 3. System Requirements

Hardware	CMTS: Cisco uBR10012 Universal Broadband Router equipped with: <ul style="list-style-type: none"> • Cisco uBR10012 Performance Routing Engine 2 • Cisco SPA-24XDS-SFP, 1-Gbps Wideband SPA • Cisco UBR10-2XDS-SIP, SPA Interface Processor • Cisco UBR10-MC5X20U-D or UBR10-MC5X20H-D, 5 downstream and 20 upstream RF cards
Software	Cisco IOS® Software Release 12.3(21)BC3 or later on the Cisco uBR10012

Ordering Information

To place an order, visit the Cisco Ordering Home Page.

Table 4. Ordering Information

Product Name	Part Number
Linksys 8-channel D3.0 DS Channel Bonding CM-Japan Frequency	WCM300-JP
Linksys 8-channel D3.0 DS Channel Bonding Cable Modem-DOCSIS	WCM300-NA
Linksys 8-channel D3.0 DS Channel Bonding Modem-EuroDOCSIS	WCM300-EU

Service and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners provide a broad portfolio of end-to-end services and support that can help increase your network's business value and return on investment. This approach defines the minimum set of activities needed, by technology and by network complexity, to help you successfully deploy and operate Cisco technologies and optimize their performance throughout the lifecycle of your network.

For More Information

For more information, please contact your local account representative.



Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

©2007 Cisco Systems, Inc. All rights reserved. CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, IQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0710R)